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SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, NW
Washington, DC 20037-3213

EXAMINER

DANIEL JR, WILLIE J

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 09/915,766
Filing Date: July 27, 2001
Appellant(s): KANG ET AL.

MAILED

SEP 08 2005

Technology Center 2800

Diallo T. Crenshaw
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 09 December 2004.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

The brief does not contain a statement identifying any related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal contained in the brief. In the brief, the appellants and appellants' representatives states "...are unaware of any appeals or interferences...". Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments*

No amendment after final has been filed.

(5) *Summary of Claimed Subject Matter*

The summary of claimed subject matter contained in the brief is correct.

(6) *Grounds of Rejection to be Reviewed on Appeal*

The appellant's statement of the ground of rejection to be reviewed in the brief is correct.

(7) ***Response to Arguments***

The Examiner's response to the arguments of the brief concerning the art rejection of Claims 1-10 are as followed:

A. Response to Argument A.1. (section A)

Regarding appellant's argument of **Claims 1, 5, 6, and 10** presented in argument A.1. on pg. 8, "Bauchot does not teach or suggest at least receiving a transmission rate corresponding to a desired Contention Free Period of data to be transceived from said at least one wireless communication terminal", the Examiner respectfully disagrees. Appellant admits on pg. 9, 1st paragraph, lines 5-6 "...bandwidth relates to transmission rate...". The Examiner maintains that Bauchot inherently discloses "receiving a transmission rate..." limitation, as evidenced by the fact that one of ordinary skill in the art would have recognized that ATM (asynchronous transfer mode) technology must have a transmission rate established in accordance to the ATM service traffic parameters such as quality of service (QOS) parameters, bit rate (e.g., ABR (available bit rate), CBR (constant bit rate), VBR (variable bit rate), UBR (unspecified bit rate), and MCR (minimum cell rate)), and traffic contract. ATM technology guarantees some level of service in accordance to the connection (i.e., bandwidth) which corresponds to a transmission rate (see Bauchot col. 1, lines 24-31; col. 2, line 37 - col. 3, line 13; Table 1). Bauchot teaches of using an ATM based system in which mobile terminals (10) request utilization of an UP_RESERVED period (i.e., Contention Free Period) to transfer data (see col. 6, lines 30-40; col. 8, lines 14-20; Fig. 1A), where the mobile terminals (10) request additional bandwidth to transfer data. As a result of requesting the

UP_RESERVED period, a transfer rate would be inherent because the UP_RESERVE period (i.e., bandwidth) would be allocated to the mobile terminal according to the type of traffic. The traffic parameters vary according to the needed QOS, bit rate, and traffic contract (see Bauchot col. 1, lines 24-31; col. 2, line 37 - col. 3, line 13; Table 1), where the type of traffic class of service such as rt-VBR (real time Variable Bit rate) and nrt-VBR (non real time Variable Bit rate) are traffic parameters that correlate to a transmission rate (see col. 6, lines 41-49; col. 7, lines 1-4).

To further support the inherency of the transmission rate, Fichou et al. (US 5,909,443) discloses an ATM network congestion control system using explicit rate cell markings. The ATM network uses an explicit rate (ER) algorithm that is used to determine the additional bandwidth available that can be reserved and the transmission rate to be associated with the bandwidth (see Fichou - abstract; col. 6), where the additional bandwidth can be allocated to the types of traffic such as VBR, CBR, and ABR. The ER associates bandwidth reservations with the rates (e.g., PCR and MCR) of the type of traffic the bandwidth has to support (see Fichou - col. 7, lines 55-65; col. 8, lines 11-30, 35-41; col. 6, lines 40-55; Figs. 9-10). For example, a VBR connection can be bursty at times which require additional reserved bandwidth (see Fichou - col. 9, lines 45-58; Figs. 9-10), where a VBR source can be bursting (e.g., transmitting) at high data rate relative to the normal data rate in which the additional bandwidth would be reserved and allocated to the VBR connection for the purpose of supporting a higher data rate. Another example, ATM network has bandwidth distribution to allocate more bandwidth to an ABR connection with a higher minimum cell rate (MCR) than an ABR connection

with a lower minimum cell rate (see Fichou - col. 11, lines 39-44), where the bandwidth is allocated in proportion to the cell rate (i.e., transmission rate).

Therefore, the reasoning for the inherency of the feature "...receiving a transmission rate..." has a direct correlation to the bandwidth request of the UP_RESERVE period in the Bauchot reference. When a mobile terminal requests the reservation of additional bandwidth, the request must have a transmission rate that the bandwidth must support according to the quality of service (QOS) traffic parameters in an wireless access ATM network (see col. 1, lines 24-31; col. 2, line 37 - col. 3, line 13; Table 1; col. 6, lines 30-40; col. 8, lines 16-20; Figs. 1A and 4), where the ATM technology guarantees the QOS traffic parameters such as the transmission rate of the contract and transmission rate of the type of traffic. The different types of communication services transmitted over ATM include speech, video, hi-fi sound, and computer data (see col. 1, lines 19-24). Appellant admits on pg. 9, 1st paragraph, lines 5-6 "...bandwidth relates to transmission rate...", which further supports that if a mobile terminal requests additional bandwidth then the request has to relate to a transmission rate.

B. Response to Argument A.2. (section A)

Regarding appellant's argument of **Claims 1, 5, 6, and 10** presented in argument A.2. on pg. 9, that "Bauchot does not teach or suggest at least adjusting a rate of Contention Free Period occupancy of said at least one wireless communication terminal in the fixed bandwidth, based on the received transmission rate", the Examiner

respectfully disagrees. The Examiner maintains that Bauchot discloses "...adjusting a rate of Contention Free Period occupancy of said at least one wireless communication terminal in the fixed bandwidth, based on the received transmission rate ..." limitation, as evidenced by the fact that one of ordinary skill in the art would have recognized that ATM (asynchronous transfer mode) technology has a protocol system driven by a Master Scheduler entity (see Fig. 4) that has a variable length frame structure (see Bauchot - col. 8, lines 3-25; Figs. 1A and 3-4), where the time frame consists of periods DOWN, UP_RESERVED, and UP_CONTENTION. Bauchot discloses adjusting a rate of Contention Free Period (e.g., UP_RESERVED) occupancy of said at least one wireless communication terminal (e.g., mobile terminal 10) in the fixed bandwidth (e.g., time frame) (see col. 7, lines 2-4; col. 5, lines 34-39; Fig. 3), where the boundaries of the time frame are flexibly and dynamically adjusted which changes the amount of occupancy or duration between the periods. The length of the time frame has boundaries that are split between the periods (see Bauchot - col. 8, lines 27-43; Fig. 3), where each mobile terminal of the wireless cell can determine on the fly which time slots of the current time frame that mobile terminal can send or receive packets according to the allocated bandwidth (e.g., time slots of the frame). The Examiner maintains that Bauchot discloses the portion of the feature "...based on received transmission rate..." as indicated in the above section "a. Response to Argument A.1." and according to (see Bauchot - col. 7, lines 1-4), which states to achieve maximum throughput. Therefore, the boundaries of the periods are adjusted to allocate bandwidth between the periods in which the amount of bandwidth for one period may have more bandwidth than the other two periods. The

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period with more bandwidth will support a higher transmission rate as compared to period(s) with less bandwidth.

C. Response to Argument (section A)

Appellant's argument of **claims 1, 5, 6, and 10** on pg. 10, 2nd paragraph, lines 1-3, that "...**accessing** a rate of contention free period...", the Examiner respectfully disagrees.

In response to appellant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which appellant relies (i.e., "...**accessing** a rate of contention free period...") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding appellant's argument of **claims 1, 5, 6, and 10**, the claims do not recite the feature "...**accessing** a rate of contention free period..." which the appellant relies on for the argument.

D. Response to Argument (section B)

Appellant's argument of **claims 2, 4, 7, and 9** on pg. 10, 6th paragraph, that "...one skilled in the art would NOT have been led to combine Bauchot with Kalliokulju...", the Examiner respectfully disagrees.

In response to appellant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Bauchot (see col. 1, lines 6-11; col. 4, lines 65-67; Fig. 1A) and Kalliokulju (see col. 1, lines col. 4, lines 29-35; Fig. 3) relate to the same field of endeavor which is wireless communications. In addition to being in the same field of endeavor, both applied references share the common features such as bandwidth or resource allocation (see Bauchot - col. 6, lines 47-49; Kalliokulju - abstract; col. 4, lines 1-3) and quality of service (QOS) (see Bauchot col. 6, lines 43-50; Kalliokulju - abstract; col. 4, lines 44-54).

Therefore, the reason to combine the teachings of Bauchot with Kalliokulju is obvious because the invention of Kalliokulju is not restricted to the system of Kalliokulju and can also be applied to other message transmissions systems (see Kalliokulju - col. 4, lines 29-35) to reliably ensure a certain quality of service (QOS) level (see Kalliokulju - col. 4, lines 13-14).

E. Response to Argument (section C)

Appellant's argument of **claims 3 and 8** on pg. 12, 1st paragraph, that "...would NOT have been led to combine Montpetit with Bauchot and/or Kalliokulju...", the

Examiner respectfully disagrees.

In response to appellant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Bauchot (see col. 1, lines 6-11; col. 4, lines 65-67; Fig. 1A), Kalliokulju (see col. 1, lines col. 4, lines 29-35; Fig. 3), and Montpetit (see col. 4, lines 10-15) relate to the same field of endeavor which is wireless communications. In addition to being in the same field of endeavor, the applied references share the common features such as bandwidth or resource allocation (see Bauchot - col. 6, lines 47-49; Kalliokulju - abstract; col. 4, lines 1-3; Montpetit - col. 4, lines 12-15; col. 7, line 64 - col. 8, line 5) and quality of service (QOS) (see Bauchot col. 6, lines 43-50; Kalliokulju - abstract; col. 4, lines 44-54; Montpetit - col. 5, lines 46-49, 61-65). Also, Bauchot (see col. 6, lines 28-40; col. 7, lines 1-4; Fig. 3) and Montpetit (see col. 10, lines 15-28; col. 9, lines 10-25; Fig. 6) both teach of uplink contention.

Therefore, the reason to combine the teachings of Bauchot with Kalliokulju and Montpetit is to have a system that provides a bandwidth-on-demand feature for uplink transmission based on a request (see Montpetit - col. 3, lines 13-15; col. 18, lines 38-41).

F. Response to Argument (section C)

Appellant's argument of **claims 3 and 8** on pg. 12, 1st paragraph, that "...absent impermissible hindsight reasoning...", the Examiner respectfully disagrees.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In the present applicant, the Appellant is reminded that the Examiner relies on the factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

First, the Examiner considered the Bauchot reference alone and when compared with the claims 3 and 8 at issue in the present application, the Examiner found a difference(s) in the wireless communications system of the Bauchot references and the present application.

Second, the Examiner considered the similar teachings found in the Kalliokulju

and Montpetit references that accomplished the teachings of the claimed features of the claims 3 and 8. Both the Kalliokulju and Montpetit references teach of wireless communications systems which are in the same field of endeavor as the Bauchot reference. However, the Examiner also considered that for *a person with the common knowledge and ordinary skill in the art* of wireless communications systems would have obviously accomplished and developed the specific teachings and/or advantages of the apparatus and method claimed by the appellant by considering the systems accomplished by the teachings of the Kalliokulju and Montpetit references.

Finally, the Examiner, after considering *the common knowledge available to a person of ordinary skill in the art* of wireless communications systems, concluded that Bauchot's teachings when modified by the teachings of Kalliokulju and Montpetit would render the present application obvious by the combined teachings of the references.

(8) *Claims Appendix*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Evidence Appendix*

No evidence has been entered or relied upon in the appeal brief.

(10) *Related Proceedings Appendix*

No proceedings have been identified in the related appeals and interferences section.

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(11) Prior Art of Record

5970062	Bauchot	10-1999
6553006	Kalliokulju et al.	04-2003
6366761	Montpetit	04-2002
5909443*	Fichou et al.	06-1999

*Cited as support for inherent feature(s).

(12) Grounds of Rejection Applicable to the Appealed Claims

The following ground(s) of rejection are applicable to the appealed claims:

A. Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 5, 6, and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by **Bauchot (US 5,970,062)**.

Regarding **Claim 1**, Bauchot discloses a method for allocating bandwidth in a wireless Local Area Network having an Access Point (18) and at least one mobile terminal (10) which reads on the claimed “wireless communication terminal” (see Fig. 1A), comprising the steps of:

(a) the Access Point (18) allocating a fixed bandwidth to said at least one wireless communication terminal (10) (see col. 6, lines 21-58; Figs. 1A and 3);

(b) receiving a transmission rate corresponding to a desired UP_RESERVED which reads on the claimed “Contention Free Period” of data to be transceived from said at least one wireless communication terminal (10) (see col. 6, lines 34-40; col. 8, lines 14-20; col. 9, lines 30-48; Fig. 3), where the data is transferred at a transmission rate according to the mobile terminal requests corresponding to the allocated bandwidth for transmitting in which the transmission rate would be inherent; and

(c) adjusting a rate of Contention Free Period occupancy of said at least one wireless communication terminal (18) in the fixed bandwidth, based on the received transmission rate (see col. 6, lines 34-40; col. 8, lines 14-20; col. 9, lines 30-48; Fig. 3), where the rate is adjusted relating to the request made from the mobile terminal.

Regarding **Claim 5**, Bauchot discloses the method of claim 1, wherein the step (c) comprises the steps of:

calculating a Contention Free Period occupancy requested by said at least one wireless communication terminal (10) (see col. 6, lines 34-40; col. 8, line 7 - col. 9, line

49; Fig. 3), where the mobile terminal requests addition bandwidth and the Contention Free Period is calculated and adjusted accordingly;

accepting the Contention Free Period occupancy as a current Contention Free Period occupancy, if the Contention Free Period occupancy requested by said at least one wireless communication terminal (10) does not exceed a Contention Free Period occupancy limit (see col. 6, lines 34-40; col. 8, line 7 - col. 9, line 49), where the access point accepts the mobile terminals request for additional bandwidth by adjusting the bandwidth; and

associating said at least one wireless communication terminal (10) to the Access Point (18) after adjusting a ratio of the Contention Free Period to Contention Period, if a sum of the current Contention Free Period occupancy is less than a maximum Contention Free Period (see col. 6, lines 34-40; col. 8, line 7 - col. 9, line 49; Fig. 3), where the mobile terminal and access point communicates according to the adjusted ratio.

Regarding **Claim 6**, Bauchot discloses an apparatus for allocating bandwidth in a wireless Local Area Network, including at least one wireless communication terminal (10) (see Fig. 1A), comprising:

bandwidth fixing means (58) for fixing bandwidth to be allocated to said at least one wireless communication terminal (10) (see col. 6, lines 21-58; Figs. 1A and 3);

transmission rate receiving means (38) for receiving a transmission rate of said at least one wireless communication terminal (10) from said at least one wireless communication terminal, if said at least one wireless communication terminal is intended for a data transmission through a Contention Free Period (see col. 6, lines 34-40; col. 8,

lines 14-20; col. 9, lines 30-48; Figs. 1A and 3), where the data is transferred at a transmission rate according to the mobile terminal requests corresponding to the allocated bandwidth for transmitting in which the transmission rate would be inherent; and period adjusting means (84) for adjusting a rate of a Contention Free Period occupancy of said at least one wireless communication terminal (10) in the bandwidth, based on the received transmission rate in the fixed bandwidth, based on the received transmission rate (see col. 6, lines 34-40; col. 8, lines 14-20; col. 9, lines 30-48; Fig. 3), where the rate is adjusted relating to the request made from the mobile terminal.

Regarding **Claim 10**, Bauchot discloses the apparatus of claim 6, wherein the period adjusting means comprises:

calculating means (84) for calculating the Contention Free Period occupancy requested by said at least one wireless communication terminal (10), based on the received transmission rate (see col. 6, lines 34-40; col. 8, line 7 - col. 9, line 49; Fig. 3), where the mobile terminal requests addition bandwidth and the Contention Free Period is calculated and adjusted accordingly;

accepting means (38) for accepting the requested Contention Free Period occupancy as a current Contention Free Period occupancy, if the Contention Free Period occupancy requested by said at least one wireless communication terminal (10) does not exceed a Contention Free Period occupancy limit (see col. 6, lines 34-40; col. 8, line 7 - col. 9, line 49), where the access point accepts the mobile terminals request for additional bandwidth by adjusting the bandwidth; and

association means (48) for associating the mobile terminal (10) which reads on the claimed "terminal" to an Access Point (18) after adjusting a ratio of the Contention Free Period to Contention Period, if a sum of the current Contention Free Period occupancy is less than a maximum Contention Free Period (see col. 6, lines 34-40; col. 8, line 7 - col. 9, line 49; Fig. 3), where the mobile terminal and access point communicates according to the adjusted ratio.

B. Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 4, 7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bauchot (US 5,970,062)** in view of **Kalliokulju et al. (hereinafter Kalliokulju) (US 6,553,006 B1)**.

Regarding **Claim 2**, Bauchot teaches of data transfer (see col. 6, lines 34-36). Bauchot fails to disclose the data being real time data. However, the examiner maintains that data being real time data was well known in the art, as taught by Kalliokulju.

In the same field of endeavor, Kalliokulju teaches of data being real time data (see col. 8, lines 62-63), where the data is based on real time data that is transmitted.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bauchot and Kalliokulju to have data being real time data.

The advantage of combining the teachings of Bauchot and Kalliokulju to have resources allocated (e.g. based on bandwidth) that provides quality of service for data transmission (see col. 8, lines 18-64).

Regarding **Claim 4**, Bauchot teaches of wherein the transmission rate received from said at least one wireless communication terminal comprises a data packet length (see col. 6, lines 34-40; col. 8, line 7 - col. 9, line 49; Fig. 3), where length of the data packet (frame) is according to the bandwidth. Bauchot fails to disclose the feature the transmission rate comprises a data transmission speed. However, the examiner maintains that the feature the transmission rate comprises a data transmission speed was well known in the art, as taught by Kalliokulju.

Kalliokulju further teaches of the feature the transmission rate comprises a data transmission speed (see col. 4, lines 61-64), where the data transmission has an associated speed.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bauchot and Kalliokulju to have the feature the transmission rate comprises a data transmission speed.

The advantage of combining the teachings of Bauchot and Kalliokulju to have resources allocated (e.g. based on bandwidth) that provides quality of service for data transmission (see col. 8, lines 18-64).

Regarding **Claim 7**, Bauchot teaches of data transfer (see col. 6, lines 34-36).

Bauchot fails to disclose the data being real time data. However, the examiner maintains that data being real time data was well known in the art, as taught by Kalliokulju.

Kalliokulju further teaches of data being real time data (see col. 8, lines 62-63), where the data is based on real time data that is transmitted.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bauchot and Kalliokulju to have data being real time data.

The advantage of combining the teachings of Bauchot and Kalliokulju to have resources allocated (e.g. based on bandwidth) that provides quality of service for data transmission (see col. 8, lines 18-64).

Regarding **Claim 9**, Bauchot teaches of having a data packet length for data transmission at an associated transmission rate (see col. 6, lines 34-40; col. 8, line 7 - col. 9, line 49; Fig. 3), where length of the data packet (frame) is according to the bandwidth. Bauchot fails to disclose the data transmission speed. However, the examiner maintains that data transmission speed was well known in the art, as taught by Kalliokulju.

Kalliokulju further teaches of data transmission with speed (see col. 4, lines 61-64), where the data transmission has an associated speed.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bauchot and Kalliokulju to have data transmission speed for transmission.

The advantage of combining the teachings of Bauchot and Kalliokulju to have resources allocated (e.g. based on bandwidth) that provides quality of service for data transmission (see col. 8, lines 18-64).

Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bauchot** (US 5,970,062) in view of **Kalliokulju et al.** (hereinafter Kalliokulju) (US 6,553,006 B1) and **Montpetit** (US 6,366,761).

Regarding **Claim 3**, Bauchot teaches the fixed time frame which reads on the claimed “bandwidth” is the sum of Down, Up_Reserved, and Up_Contention periods (see col. 8, lines 28-34; Fig. 3), where the periods are for transmission of data. Bauchot fails to disclose the data being real time and non real time data and the bandwidth being the sum of contention and contention free periods. However, the examiner maintains that data being real time and non real time data was well known in the art, as taught by Kalliokulju.

Kalliokulju further teaches of data being real time and non real time data (see col. 8, lines 62-64), where the data is based on real time and non real time data that is transmitted. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bauchot and Kalliokulju to have data being real time data. The advantage of combining the teachings of Bauchot and Kalliokulju to have resources allocated in which the allocation is based on, for example, bandwidth that provides quality of service for data transmission (see col. 8, lines 18-64). Bauchot and Kalliokulju fails to disclose the bandwidth being the sum of

contention and contention free periods. However, the examiner maintains that bandwidth being the sum of contention and contention free periods was well known in the art, as taught by Montpetit.

In the same field of endeavor, Montpetit teaches of bandwidth being the sum of two periods (see col. 9, line 1 - col. 10, line 37; Fig. 6), where the bandwidth has a threshold for transmission until a request is made for the additional bandwidth that is available in the contention channel.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bauchot, Kalliokulju, and Montpetit to have bandwidth being the sum of contention and contention free periods.

The advantage of combining the teachings of Bauchot, Kalliokulju, and Montpetit is to allocate the additional bandwidth for packet transmission when requested to maintain quality of service (see col. 5, lines 46-61; col. 9, lines 30-36).

Regarding **Claim 8**, Bauchot teaches the fixed time frame which reads on the claimed “bandwidth” is the sum of Down, Up_Reserved, and Up_Contention periods (see col. 8, lines 28-34; Fig. 3), where the periods are for transmission of data. Bauchot fails to disclose the data being real time and non real time data and the bandwidth being the sum of contention and contention free periods. However, the examiner maintains that data being real time and non real time data was well known in the art, as taught by Kalliokulju.

Kalliokulju further teaches of data being real time and non real time data (see col. 8, lines 62-64), where the data is based on real time and non real time data that is

transmitted. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bauchot and Kalliokulju to have data being real time data. The advantage of combining the teachings of Bauchot and Kalliokulju to have resources allocated in which the allocation is based on, for example, bandwidth that provides quality of service for data transmission (see col. 8, lines 18-64). Bauchot and Kalliokulju fails to disclose the bandwidth being the sum of contention and contention free periods. However, the examiner maintains that bandwidth being the sum of contention and contention free periods was well known in the art, as taught by Montpetit.

Montpetit further teaches of bandwidth being the sum of two periods (see col. 9, line 1 - col. 10, line 37; Fig. 6), where the bandwidth has a threshold for transmission until a request is made for the additional bandwidth that is available in the contention channel.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bauchot, Kalliokulju, and Montpetit to have bandwidth being the sum of contention and contention free periods.

The advantage of combining the teachings of Bauchot, Kalliokulju, and Montpetit is to allocate the additional bandwidth for packet transmission when requested to maintain quality of service (see col. 5, lines 46-61; col. 9, lines 30-36).

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(13) Conclusion

The prior art hereby made of record and relied upon is considered pertinent to support inherent feature(s) indicated by the Examiner.

* Fichou et al. (US 5,909,443) discloses an ATM Network Congestion Control System Using Explicit Rate Cell Markings.

For the above reasons, it is believed that the rejections should be sustained.

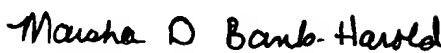
Respectfully submitted,

Willie J. Daniel, Jr. 
WJD, JR


September 2, 2005

Conferees

1. Marsha D. Banks-Harold (Class 455)
2. William G. Trost, IV (Class 455)


MARSHA D. BANKS-HAROLD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, NW
Washington, DC 20037-3213


WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600